

BEST AVAILABLE COPY

cel



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/611,447	07/06/2000	Guo-Qiang Wang	91436-265	6335

26123 7590 09/09/2005

BORDEN LADNER GERVAIS LLP
WORLD EXCHANGE PLAZA
100 QUEEN STREET SUITE 1100
OTTAWA, ON K1P 1J9
CANADA

EXAMINER

MILLS, DONALD L

ART UNIT PAPER NUMBER

2662

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/611,447

Applicant(s)

WANG ET AL.

Examiner

Donald L. Mills

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 16, 18-20, 22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 16, 18-20, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10, 16, 18-20, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fatehi et al. (US 6,600,583 B1), hereinafter referred to as Fatehi, in view of Jamoussi (Internet Draft, "Constraint-Based LSP Setup Using LDP").

Regarding claims 1-3, 6, 9, 10, 16, 19, 20, 22, and 23 Fatehi discloses an optical Internet router that uses optical tags to send and receive command and response messages between routers of an optical network, which comprises:

Assigning an optical label to a channel group, said channel group using one of said fiber optic links and comprising a plurality of channels (Referring to Figure 13, the available wavelength update message corresponds to series of channels utilizing fiber optic links. See column 8, lines 54-63;)

Encoding said optical label so as to comprise a value field, where said value field comprises a label component and where said label component comprises an indication of whether each channel of said plurality of channels is available for use in a label switched path (Referring to Figure 13, the available wavelength update message updates the router with

Art Unit: 2662

number of wavelengths available at the router to the intended router 1304 and the ID of the available wavelengths 1305-1307. See column 8, lines 54-63.)

Fatehi does not disclose *encoding said optical label to comprise a type field, a length field and a value field.*

Jamoussi teaches a method of constraint based routing (CR) in MPLS, which defines TLV encoding that includes a type, length, and value field (See page 15, section 4.3.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the router messaging system of Fatehi utilizing the MPLS method of Jamoussi. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to optically tag and read messages without sacrificing transmission efficiency and throughput capacity in heterogeneous systems. An added benefit of doing so would allow one to comply with the well-known standard of MPLS.

Regarding claim 4 as explained in the rejection statement of claim 3, Fatehi and Jamoussi teach all of the limitations of claim 3 (parent claim).

Fatehi does not disclose *wherein current availability of bandwidth on each of said plurality of channels is represented by a single bit.*

Fatehi teaches the available wavelength update message updates the router with the number of wavelengths available at the router to the intended router 1304 and the ID of the available wavelengths 1305-1307 (See column 8, lines 54-63.)

It would have been obvious to one of ordinary skill at the time of the invention to implement the ID of available wavelength of Fatehi as a single bit. One of ordinary skill in the

Art Unit: 2662

art at the time of the invention would have been motivated to do so in order to reduce system complexity when only two wavelengths are utilized.

Regarding claim 5 as explained in the rejection statement of claim 3, Fatehi and Jamoussi teach all of the limitations of claim 3 (parent claim).

Fatehi does not disclose *wherein a bit value of zero for said single bit indicates currently available bandwidth on a given one said plurality of channels.*

Fatehi teaches the available wavelength update message updates the router with the number of wavelengths available at the router to the intended router 1304 and the ID of the available wavelengths 1305-1307 (See column 8, lines 54-63.)

It would have been obvious to one of ordinary skill at the time of the invention to implement the ID of available wavelength of Fatehi as a single bit, thereby having an ID value of zero representing a first available channel. One of ordinary skill in the art at the time of the invention would have been motivated to do so in order to reduce system complexity when only two wavelengths are utilized.

Regarding claim 7, the primary reference further teaches *wherein said attribute comprises an indication of a service type of said second network* (Referring to Figure 13, number of wavelengths available at the router to the intended router 1304.)

Regarding claim 8, the primary reference further teaches *wherein said attribute comprises an indication of a control protocol of said second network* (Referring to Figure 13, address of intended router to receive this message 1303.)

Response to Arguments

Art Unit: 2662

3. Applicant's arguments filed June 20, 2005 have been fully considered but they are not persuasive.

Rejection Under 35 U.S.C. § 103

On page 2 of the remarks, regarding claims 1-10, 16, 18-20, 22, and 23, the Applicant argues Fatehi does not disclose, teach, or otherwise make obvious an *optical label*. The Examiner respectfully disagrees. Fatehi discloses an available wavelength update message (optical label), which corresponds to series of channels utilizing fiber optic links (See column 8, lines 54-63.) The Examiner utilizes the broadest, reasonable interpretation of the claims, however, the Applicant appears to be incorporating limitations from the specification into the claims. The term "label" is defined as an identifying or descriptive marker that is attached to an object. As consistent with the art and the definition of the word "label", Fatehi discloses an *optical label* as described above. Note: should the claims be amended to reflect a *label* as taught and supported in the Applicant's specification, one could overcome the prior art rejection.

On page 4 of the remarks, regarding claim 6, the rejection of claim 6 is outlined in the combined rejection statement of claims 1-3, 6, 9, 10, 16, 19, 20, 22, and 23.

On page 4 of the remarks, regarding claim 7, the Applicant argues Fatehi does not teach *wherein said attribute comprises an indication of a service type of said second network*. The Examiner respectfully disagrees. Fatehi discloses a number of wavelengths available at the router to the intended router 1304 (See Figure 13.) By relating to a number of wavelengths, Fatehi teaches the indication of an optical service of the second network. Therefore, Fatehi teaches *wherein said attribute comprises an indication of a service type of said second network*.

On page 4 of the remarks, regarding claim 8, the Applicant argues Fatehi does not teach

Art Unit: 2662

wherein said attribute comprises an indication of a control protocol of said second network.

Examiner respectfully disagrees. Fatehi discloses an address of intended router to receive this message 1303 (See Figure 13.) By relating to an optical router internet router, Fatehi teaches an indication of an IP control protocol of the second network. Therefore, Fatehi teaches *wherein said attribute comprises an indication of a control protocol of said second network.*

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Mills whose telephone number is 571-272-3094. The examiner can normally be reached on 8:00 AM to 4:30 PM.

Art Unit: 2662

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Donald L Mills

DLM

September 2, 2005



JOHN PEZZLO
PRIMARY EXAMINER

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☒ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.